Kah Fai Leong

List of Publications by Year
in descending order

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		53751	27389
142	14,239	45	106
papers	citations	h-index	g-index

154	154	154	12220
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the structural damping response of hollow carbon composite shafts with room temperature curable novel acrylic liquid thermoplastic resin. Composites Communications, 2022, 29, 100990.	3.3	6
2	Behaviour of Rectangular Hollow Thin Ply Carbon Thermoset and Thermoplastic Composite Tubes Subjected to Bending. Polymers, 2022, 14, 1386.	2.0	2
3	Effect of PMMA Coupling Layer in Enhancing the Ultrasonic Weld Strength of Novel Room Temperature Curable Acrylic Thermoplastic to Epoxy Based Composites. Polymers, 2022, 14, 1862.	2.0	3
4	An exploratory study of the use of ultrasound in the measurement of anterior tibial translation under gastrocnemius muscle stimulation. Research in Sports Medicine, 2021, 29, 103-115.	0.7	8
5	Manufacturing Optimization and Experimental Investigation of Ex-situ Core-shell Particles Toughened Carbon/EliumÂ® Thermoplastic Composites. Fibers and Polymers, 2021, 22, 1693.	1.1	7
6	Mechanical performance and damage mechanisms of thin rectangular carbon/ EliumÂ® tubular thermoplastic composites under flexure and low-velocity impact. Thin-Walled Structures, 2021, 165, 107971.	2.7	15
7	Manufacturing and investigating the load, energy and failure attributes of thin ply carbon/EliumÂ® thermoplastic hollow composites under low-velocity impact. Materials and Design, 2021, 206, 109814.	3.3	14
8	Development and impact characterization of acrylic thermoplastic composite bicycle helmet shell with improved safety and performance. Composites Part B: Engineering, 2021, 221, 109008.	5.9	28
9	Enhanced impact energy absorption and failure characteristics of novel fully thermoplastic and hybrid composite bicycle helmet shells. Materials and Design, 2021, 209, 110003.	3.3	19
10	Superior energy absorption of continuously graded microlattices by electron beam additive manufacturing. Virtual and Physical Prototyping, 2021, 16, 14-28.	5.3	28
11	Additive Manufacturing and 3D Printing. , 2021, , 621-652.		6
12	Regression model for predicting knee flexion angles using ankle plantar flexion angles, body mass index and generalised joint laxity. Sports Biomechanics, 2021, , 1-16.	0.8	1
13	Optimizing Bladder Resin Transfer Molding Process to Manufacture Complex, Thin-Ply Thermoplastic Tubular Composite Structures: An Experimental Case Study. Polymers, 2021, 13, 4093.	2.0	6
14	Introduction to rapid prototyping of biomaterials. , 2020, , 1-15.		11
15	Influence of Foot-Landing Positions at Initial Contact on Knee Flexion Angles for Single-Leg Drop Landings. Research Quarterly for Exercise and Sport, 2020, 91, 316-325.	0.8	9
16	Impact performance of innovative corrugated polystyrene foam for bicycle helmets. Journal of Cellular Plastics, 2020, , 0021955X2096521.	1.2	4
17	Ultrasonic welding of novel Carbon/EliumÂ® with carbon/epoxy composites. Composites Communications, 2020, 22, 100463.	3.3	22
18	Vibration damping and dynamic mechanical attributes of core-shell particles modified glass epoxy prepregs cured using microwave irradiations. Composites Communications, 2020, 21, 100412.	3.3	2

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19	Damping, impact and flexural performance of novel carbon/EliumÂ® thermoplastic tubular composites. Composites Part B: Engineering, 2020, 203, 108480.	5.9	41
20	Enhanced energy absorption characteristics of novel integrated hybrid honeycomb/polystyrene foam. Journal of Cellular Plastics, 2020, , 0021955X2096521.	1.2	12
21	Quasi-static indentation response of core-shell particle reinforced novel NCCF/EliumÂ® composites at different feed rates. Composites Communications, 2020, 21, 100383.	3.3	19
22	Investigation on Ultrasonic Welding Attributes of Novel Carbon/EliumÂ® Composites. Materials, 2020, 13, 1117.	1.3	44
23	Study of MgO-activated slag as a cementless material for sustainable spray-based 3D printing. Journal of Cleaner Production, 2020, 258, 120671.	4.6	36
24	Advances in Ultrasonic Welding of Thermoplastic Composites: A Review. Materials, 2020, 13, 1284.	1.3	100
25	Ultrasonic Welding of Novel Carbon/EliumÂ® Thermoplastic Composites with Flat and Integrated Energy Directors: Lap Shear Characterisation and Fractographic Investigation. Materials, 2020, 13, 1634.	1.3	28
26	Designing spray-based 3D printable cementitious materials with fly ash cenosphere and air entraining agent. Construction and Building Materials, 2019, 211, 1073-1084.	3.2	66
27	A systematical review of 3D printable cementitious materials. Construction and Building Materials, 2019, 207, 477-490.	3.2	160
28	Improvement of densification and microstructure of ASTM A131 EH36 steel samples additively manufactured via selective laser melting with varying laser scanning speed and hatch spacing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 300-313.	2.6	36
29	Construction and finite element analysis of a coupled finite element model of foot and barefoot running footwear. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2019, 233, 101-109.	0.4	7
30	Fabrication of SLM NiTi Shape Memory Alloy via Repetitive Laser Scanning. Shape Memory and Superelasticity, 2018, 4, 112-120.	1.1	34
31	Modeling temperature and residual stress fields in selective laser melting. International Journal of Mechanical Sciences, 2018, 136, 24-35.	3.6	208
32	Heat transfer and phase transition in the selective laser melting process. International Journal of Heat and Mass Transfer, 2017, 108, 2408-2416.	2.5	66
33	3D printing trends in building and construction industry: a review. Virtual and Physical Prototyping, 2017, 12, 261-276.	5.3	516
34	3D Bioprinting of Highly Thixotropic Alginate/Methylcellulose Hydrogel with Strong Interface Bonding. ACS Applied Materials & Interfaces, 2017, 9, 20086-20097.	4.0	191
35	Compressive properties of functionally graded lattice structures manufactured by selective laser melting. Materials and Design, 2017, 131, 112-120.	3.3	314
36	Effects of foot rotation positions on knee valgus during single-leg drop landing: Implications for ACL injury risk reduction. Knee, 2017, 24, 547-554.	0.8	27

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37	Compressive properties of Ti-6Al-4V lattice structures fabricated by selective laser melting: Design, orientation and density. Additive Manufacturing, 2017, 16, 213-224.	1.7	109
38	3D Printing and Additive Manufacturing. , 2017, , .		126
39	A Solvent-Free Surface Suspension Melt Technique for Making Biodegradable PCL Membrane Scaffolds for Tissue Engineering Applications. Molecules, 2016, 21, 386.	1.7	5
40	Revealing martensitic transformation and Î±/Î² interface evolution in electron beam melting three-dimensional-printed Ti-6Al-4V. Scientific Reports, 2016, 6, 26039.	1.6	114
41	Characterization, mechanical behavior and in vitro evaluation of a melt-drawn scaffold for esophageal tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 57, 246-259.	1.5	27
42	An experimental and simulation study on build thickness dependent microstructure for electron beam melted Tiâ€“6Alâ€“4V. Journal of Alloys and Compounds, 2015, 646, 303-309.	2.8	105
43	Investigation on processing of ASTM A131 Eh36 high tensile strength steel using selective laser melting. Virtual and Physical Prototyping, 2015, 10, 187-193.	5.3	24
44	Graded microstructure and mechanical properties of additive manufactured Tiâ€“6Alâ€“4V via electron beam melting. Acta Materialia, 2015, 97, 1-16.	3.8	535
45	Fabrication and in vitro analysis of tubular scaffolds by melt-drawing for esophageal tissue engineering. Materials Letters, 2015, 159, 424-427.	1.3	22
46	3D printing of smart materials: A review on recent progresses in 4D printing. Virtual and Physical Prototyping, 2015, 10, 103-122.	5.3	660
47	Introduction to rapid prototyping of biomaterials. , 2014, , 1-15.		13
48	SOLID-BASED ADDITIVE MANUFACTURING SYSTEMS. , 2014, , 127-192.		1
49	Selective Laser Melting of Density Graded TI6AL4V. , 2014, , .		1
50	3D Printing of Polycaprolactone Membrane. , 2014, , .		0
51	Phase Evolution of MHigh Speed Steel During Selective Laser Melting: Experimental Investigation and Modelling. , 2014, , .		2
52	MEDICAL AND BIOENGINEERING APPLICATIONS. , 2014, , 423-465.		0
53	BENCHMARKING AND THE FUTURE OF ADDITIVE MANUFACTURING. , 2014, , 467-501.		0
54	LIQUID-BASED ADDITIVE MANUFACTURING SYSTEMS. , 2014, , 31-125.		0

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55	ADDITIVE MANUFACTURING DATA FORMATS. , 2014, , 303-354.		0
56	ADDITIVE MANUFACTURING PROCESS CHAIN. , 2014, , 19-30.		0
57	Crystal structure analysis of M2 high speed steel parts produced by selective laser melting. Materials Characterization, 2013, 84, 72-80.	1.9	95
58	An ontology learning system for customer needs representation in product development. International Journal of Advanced Manufacturing Technology, 2013, 67, 441-453.	1.5	28
59	A mathematical model for fluid shear-sensitive 3D tissue construct development. Biomechanics and Modeling in Mechanobiology, 2013, 12, 19-31.	1.4	18
60	The Effect of a Knee-ankle Restraint on ACL Injury Risk Reduction during Jump-landing. Procedia Engineering, 2013, 60, 300-306.	1.2	2
61	A Pilot Study: Evaluations of Compression Garment Performance via Muscle Activation Tests. Procedia Engineering, 2013, 60, 361-366.	1.2	11
62	Clothing polymer fibers with well-aligned and high-aspect ratio carbon nanotubes. Nanoscale, 2013, 5, 2870.	2.8	37
63	Fabrication of channeled scaffolds with ordered array of micro-pores through microsphere leaching and indirect Rapid Prototyping technique. Biomedical Microdevices, 2013, 15, 83-96.	1.4	39
64	Impact of shortâ€term perfusion on cell retention for 3D bioconstruct development. Journal of Biomedical Materials Research - Part A, 2013, 101A, 647-652.	2.1	1
65	The use of rapid prototyping in the design of a customised ankle brace structure for ACL injury risk reduction. Virtual and Physical Prototyping, 2013, 8, 241-247.	5.3	2
66	Sports technology and prototyping. Virtual and Physical Prototyping, 2013, 8, 233-233.	5.3	0
67	Review of Selective Laser Melting process parameters for Commercially Pure Titanium and Ti6Al4V. , 2013, , 71-76.		2
68	The Development of Computer-Aided System for Tissue Scaffolds (CASTS) System for Functionally Graded Tissue-Engineering Scaffolds. Methods in Molecular Biology, 2012, 868, 111-123.	0.4	13
69	Microstructural Investigation of M2 High Speed Steel Produced by Selective Laser Melting: Microstructural Investigation of M2 High Speed Steel. , 2012, , .		5
70	Solvent-free fabrication of three dimensionally aligned polycaprolactone microfibers for engineering of anisotropic tissues. Biomedical Microdevices, 2012, 14, 863-872.	1.4	35
71	Esophageal tissue engineering: An inâ€depth review on scaffold design. Biotechnology and Bioengineering, 2012, 109, 1-15.	1.7	59
72	A novel virtual design platform for product innovation through customer involvement. , 2011, , .		2

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73	Investigation of the mechanical properties and porosity relationships in selective laser-sintered polyhedral for functionally graded scaffolds. Acta Biomaterialia, 2011, 7, 530-537.	4.1	191
74	Selective laser sintering of functionally graded tissue scaffolds. MRS Bulletin, 2011, 36, 1006-1014.	1.7	42
75	A preliminary investigation on Selective Laser Melting of M2 high speed steel. , 2011, , 339-346.		20
76	Impact of Dynamic Perfusion on Cell Population. , 2011, , .		0
77	Biodegradable Double-layer Cell Carriers for Tissue Engineering. , 2011, , .		0
78	Cryogenic prototyping of chitosan scaffolds with controlled micro and macro architecture and their effect on in vivo neoâ€vascularization and cellular infiltration. Journal of Biomedical Materials Research - Part A, 2010, 94A, 1303-1311.	2.1	48
79	Fibroblast response to interstitial flow: A stateâ€ofâ€theâ€art review. Biotechnology and Bioengineering, 2010, 107, 1-10.	1.7	24
80	Porous polycaprolactone scaffold for cardiac tissue engineering fabricated by selective laser sintering. Acta Biomaterialia, 2010, 6, 2028-2034.	4.1	310
81	A Portable Device for Fabricating Biomaterial Microfiber Bundles. Key Engineering Materials, 2010, 447-448, 750-754.	0.4	1
82	Indirect fabrication of gelatin scaffolds using rapid prototyping technology. Virtual and Physical Prototyping, 2010, 5, 45-53.	5.3	44
83	Selective laser sintering adaptation tools for cost effective fabrication of biomedical prototypes. Rapid Prototyping Journal, 2010, 16, 90-99.	1.6	28
84	Modeling of powder particle heat transfer process in selective laser sintering for fabricating tissue engineering scaffolds. Rapid Prototyping Journal, 2010, 16, 400-410.	1.6	34
85	Multimedia courseware for teaching of rapid prototyping systems. Rapid Prototyping Journal, 2010, 16, 80-89.	1.6	12
86	MEDICAL AND BIOENGINEERING APPLICATIONS. , 2010, , 403-436.		0
87	Human-centric product conceptualization using a design space framework. Advanced Engineering Informatics, 2009, 23, 149-156.	4.0	26
88	A heuristic-based approach to conceptual design. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2009, 20, 97-116.	1.2	43
89	Specialized Fabrication Processes: Rapid Prototyping. , 2009, , 493-523.		2
90	Spinning of biomaterial microfibers for tendon tissue engineering. , 2009, , .		1

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91	Process flow for designing functionally graded tissue engineering scaffolds. , 2009, , .		1
92	A practical approach on temperature variation in Selective Laser Melting with a novel heat transfer model. , 2009, , .		0
93	An interactive multimedia approach to enhance learning of rapid prototyping. , 2009, , .		0
94	Indirect fabrication of tissue engineering scaffolds using rapid prototyping and a foaming process. , 2009, , .		0
95	Improved biocomposite development of poly(vinyl alcohol) and hydroxyapatite for tissue engineering scaffold fabrication using selective laser sintering. Journal of Materials Science: Materials in Medicine, 2008, 19, 989-996.	1.7	108
96	Melt flow behaviour of poly-Îµ-caprolactone in fused deposition modelling. Journal of Materials Science: Materials in Medicine, 2008, 19, 2541-2550.	1.7	195
97	Development of a 95/5 poly(L-lactide-co-glycolide)/hydroxylapatite and Î²-tricalcium phosphate scaffold as bone replacement material via selective laser sintering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 84B, 17-25.	1.6	157
98	Engineering functionally graded tissue engineering scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 140-152.	1.5	290
99	Development of cryogenic prototyping for tissue engineering. Virtual and Physical Prototyping, 2008, 3, 25-31.	5.3	20
100	Rapid freeze prototyping technique in bioâ€plotters for tissue scaffold fabrication. Rapid Prototyping Journal, 2008, 14, 246-253.	1.6	48
101	Computer Aided Tissue Engineering Scaffold Fabrication. , 2008, , 67-85.		11
102	Modelling of Extrusion Behaviour of Biopolymer and Composites in Fused Deposition Modelling. Key Engineering Materials, 2007, 334-335, 1241-1244.	0.4	26
103	Compressive properties and degradability of poly(É›-caprolatone)/hydroxyapatite composites under accelerated hydrolytic degradation. Journal of Biomedical Materials Research - Part A, 2007, 80A, 655-660.	2.1	83
104	Comparison of drying methods in the fabrication of collagen scaffold via indirect rapid prototyping. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 82B, 260-266.	1.6	60
105	Poly-Îµ-caprolactone/hydroxyapatite for tissue engineering scaffold fabrication via selective laser sintering. Acta Biomaterialia, 2007, 3, 1-12.	4.1	375
106	Characterization of a poly-epsilon-caprolactone polymeric drug delivery device built by selective laser sintering. Bio-Medical Materials and Engineering, 2007, 17, 147-57.	0.4	17
107	Building Porous Biopolymeric Microstructures for Controlled Drug Delivery Devices Using Selective Laser Sintering. International Journal of Advanced Manufacturing Technology, 2006, 31, 483-489.	1.5	74
108	Indirect fabrication of collagen scaffold based on inkjet printing technique. Rapid Prototyping Journal, 2006, 12, 229-237.	1.6	98

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109	Investigation of the mechanical properties and porosity relationships in fused deposition modellingâ€fabricated porous structures. Rapid Prototyping Journal, 2006, 12, 100-105.	1.6	230
110	Fabrication and characterization of three-dimensional poly(ether-ether-ketone)/-hydroxyapatite biocomposite scaffolds using laser sintering. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2005, 219, 183-194.	1.0	122
111	Fabrication of customised scaffolds using computerâ€aided design and rapid prototyping techniques. Rapid Prototyping Journal, 2005, 11, 249-259.	1.6	126
112	Selective laser sintering of biocompatible polymers for applications in tissue engineering. Bio-Medical Materials and Engineering, 2005, 15, 113-24.	0.4	70
113	Automatic Algorithm for Generating Complex Polyhedral Scaffold Structures for Tissue Engineering. Tissue Engineering, 2004, 10, 595-610.	4.9	100
114	Enhanced Learning of Rapid Prototyping Systems through Multimedia. International Journal of Mechanical Engineering Education, 2004, 32, 115-125.	0.6	2
115	Rapid prototyping in tissue engineering: challenges and potential. Trends in Biotechnology, 2004, 22, 643-652.	4.9	741
116	Development of tissue scaffolds using selective laser sintering of polyvinyl alcohol/hydroxyapatite biocomposite for craniofacial and joint defects. Journal of Materials Science: Materials in Medicine, 2004, 15, 1113-1121.	1.7	225
117	Development of a Tissue Engineering Scaffold Structure Library for Rapid Prototyping. Part 1: Investigation and Classification. International Journal of Advanced Manufacturing Technology, 2003, 21, 291-301.	1.5	199
118	Development of a Tissue Engineering Scaffold Structure Library for Rapid Prototyping. Part 2: Parametric Library and Assembly Program. International Journal of Advanced Manufacturing Technology, 2003, 21, 302-312.	1.5	121
119	Solid freeform fabrication of three-dimensional scaffolds for engineering replacement tissues and organs. Biomaterials, 2003, 24, 2363-2378.	5.7	952
120	Scaffold development using selective laser sintering of polyetheretherketoneâ€“hydroxyapatite biocomposite blends. Biomaterials, 2003, 24, 3115-3123.	5.7	558
121	Rapid Prototyping. , 2003, , .		348
122	Characterization of microfeatures in selective laser sintered drug delivery devices. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2002, 216, 369-383.	1.0	88
123	Investigation of 3D Non-Random Porous Structures by Fused Deposition Modelling. International Journal of Advanced Manufacturing Technology, 2002, 19, 217-223.	1.5	115
124	Dual Material Rapid Prototyping Techniques for the Development of Biomedical Devices. Part 2: Secondary Powder Deposition. International Journal of Advanced Manufacturing Technology, 2002, 19, 679-687.	1.5	24
125	The Design of Scaffolds for Use in Tissue Engineering. Part II. Rapid Prototyping Techniques. Tissue Engineering, 2002, 8, 1-11.	4.9	696
126	Characterization of SLS parts for drug delivery devices. Rapid Prototyping Journal, 2001, 7, 262-268.	1.6	82

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127	The Design of Scaffolds for Use in Tissue Engineering. Part I. Traditional Factors. Tissue Engineering, 2001, 7, 679-689.	4.9	2,018
128	Dual Material Rapid Prototyping Techniques for the Development of Biomedical Devices. Part 1: Space Creation. International Journal of Advanced Manufacturing Technology, 2001, 18, 717-723.	1.5	31
129	Fabrication of porous polymeric matrix drug delivery devices using the selective laser sintering technique. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2001, 215, 191-192.	1.0	84
130	Feasibility of tissue engineering scaffold fabrication using fused deposition modelling. , 2001, , .		8
131	LIQUID-BASED RAPID PROTOTYPING SYSTEMS. , 2000, , 27-77.		0
132	POWDER-BASED RAPID PROTOTYPING SYSTEMS. , 2000, , 117-149.		0
133	SOLID-BASED RAPID PROTOTYPING SYSTEMS. , 2000, , 79-115.		0
134	RAPID PROTOTYPING DATA FORMATS. , 2000, , 151-200.		0
135	Microblasting characteristics of jewellery models built using stereolithography apparatus (SLA). International Journal of Advanced Manufacturing Technology, 1998, 14, 450-458.	1.5	3
136	Abrasive jet deburring of jewellery models built by stereolithography apparatus (SLA). Journal of Materials Processing Technology, 1998, 83, 36-47.	3.1	46
137	Rapid prototyping in Singapore: 1988 to 1997. Rapid Prototyping Journal, 1997, 3, 116-119.	1.6	3
138	A study of stereolithography file errors and repair. Part 1. Generic solution. International Journal of Advanced Manufacturing Technology, 1996, 12, 407-414.	1.5	83
139	A study of stereolithography file errors and repair. Part 2. Special cases. International Journal of Advanced Manufacturing Technology, 1996, 12, 415-422.	1.5	55
140	Prototyping a feature based modelling system for automated process planning. Journal of Mechanical Working Technology, 1989, 20, 195-204.	0.1	0
141	Properties of Test Coupons Fabricated by Selective Laser Melting. Key Engineering Materials, 0, 447-448, 780-784.	0.4	27
142	Processing and Properties of Construction Materials for 3D Printing. Materials Science Forum, 0, 861, 177-181.	0.3	78